AMENDMENTS TO THE CLAIMS:

Claim 1. (Currently amended) A light-emitting semiconductor device comprising:

a substrate;

plural semiconductor layers which are made of group III nitride group compound semiconductor formed on said substrate; and

an active layer comprising a multiple quantum well structure comprising:

a plurality of quantum well layers which satisfy the formula $A1_{1-x}In_xN$, where a composition ratio x of indium (In) is in a range of $\underline{0.1 \leq x < 1}$ ~~$0.1 \leq x \leq 1$~~; and

at least one quantum barrier layer which satisfies the formula $Al_{1-z-y}Ga_yIn_zN$ ($0 \leq y \leq 1$, $0 \leq z < 1$, $0 \leq z+y \leq 1$), alternately formed with said plurality of quantum well layers,

wherein a composition ratio y of gallium (Ga) in said at least one quantum barrier layer is one of $y=1$, $y \approx 1$, and $0.9 < y \leq 1$.

Claim 2. (Previously presented) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 1, wherein said plurality of quantum well layers and said at least one quantum barrier layer are laminated together.

Claim 3-4. (Canceled)

Claim 5. (Previously presented) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 1, wherein said composition ratio y of gallium (Ga) in said at least one quantum barrier layer is $y=1$.

Claim 6. (Canceled)

Claim. 7 (Withdrawn-Currently amended) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 2, wherein said composition ratio x of indium (In), said composition ratio y of gallium (Ga), and a composition ratio z of indium (In) are $y=0$ and $\underline{0 \leq z < x < 1}$ ~~$0 \leq z < x \leq 1$~~, $y \approx 0$ and $\underline{0 \leq z < x < 1}$ ~~$0 \leq z < x \leq 1$~~, or $0 \leq y < 0.1$ and $\underline{0 \leq z < x < 1}$ ~~$0 \leq z < x \leq 1$~~.

Claim 8. (Withdrawn-Currently amended) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 1 ~~4~~, wherein said composition ratio x of indium (In), said composition ratio y of gallium (Ga), and a composition ratio z of indium (In) are y=0 and $0 \leq z < x < 1$ ~~$0 \leq z < x \leq 1$~~, $y \approx 0$ and $0 \leq z < x < 1$ ~~$0 \leq z < x \leq 1$~~, or $0 \leq y < 0.1$ and $0 \leq z < x < 1$ ~~$0 \leq z < x \leq 1$~~.

Claim 9. (Previously presented) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 2, wherein said composition ratio z of indium (In) in said at least one quantum barrier layer is one of $z=0$, $z \approx 0$, and $0 \leq z < 0.1$.

Claim 10. (Canceled)

Claim 11. (Previously presented) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 1, wherein said composition ratio z of indium (In) in said at least one quantum barrier layer is one of $z=0$, $z \approx 0$, and $0 \leq z < 0.1$.

Claim 12. (Canceled)

Claim 13. (Withdrawn) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 7, wherein said composition ratio z of indium (In) is $z=0$, $z \approx 0$, or $0 \leq z < 0.1$.

Claim 14. (Withdrawn) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 8, wherein said composition ratio z of indium (In) is $z=0$, $z \approx 0$, or $0 \leq z < 0.1$.

Claim 15. (Original) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 1, wherein a thickness of said plurality of quantum well layers is in a range from 1nm to 10nm.

Claim 16. (Withdrawn) A light-emitting semiconductor device using a group III nitride

group compound semiconductor according to claim 14, wherein a thickness of said plurality of quantum well layers is in a range from 1nm to 10nm.

Claim 17. (Previously presented) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 1, wherein said plurality of quantum well layers comprises three to ten layers.

Claim 18. (Withdrawn) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 16, wherein said plurality of quantum well layers comprises three to ten layers.

Claim 19. (Previously presented) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 1, wherein a thickness of said at least one quantum barrier layer is in a range from 3nm to 10nm.

Claim 20. (Withdrawn) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 18, wherein a thickness of said at least one quantum barrier layer is in a range from 3nm to 10nm.

Claim 21. (Original) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 1, wherein some parts of nitrogen (N) in said plurality of quantum well layers are substituted for group V dopants by doping group V impurities such as phosphor (P), arsenic (As), antimony (Sb), and bismuth (Bi).

Claim 22. (Previously presented) A light-emitting device using a group III nitride group compound semiconductor according to claim 1, wherein some parts of nitrogen (N) in at least one of said plurality of quantum well layers and said at least one quantum barrier layer are substituted for group V dopants by doping group V impurities such as phosphor (P), arsenic (As), antimony (Sb), and bismuth (Bi).

Claim 23. (Withdrawn) A light-emitting semiconductor device using a group III nitride

group compound semiconductor according to claim 14, wherein some parts of nitrogen (N) in at least one of said plurality of quantum well layers and said at least one quantum barrier layer are substituted for group V dopants by doping group V impurities such as phosphor (P), arsenic (As), antimony (Sb), and bismuth (Bi).

Claim 24. (Original) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 1, wherein some parts of group III elements (Al, Ga, and In) in said plurality of quantum well layers are substituted for other group III dopants by doping group III impurities such as boron (B) and thallium (Tl).

Claim 25. (Previously presented) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 1, wherein some parts of group III elements (Al, Ga, and In) in at least one of said plurality of quantum well layers and said at least one quantum barrier layer are substituted for other group III dopants by doping group III impurities such as boron (B) and thallium (Tl).

Claim 26. (Withdrawn) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 14, wherein some parts of group III elements (Al, Ga, and In) in at least one of said plurality of quantum well layers and said at least one quantum barrier layer are substituted for other group III dopants by doping group III impurities such as boron (B) and thallium (Tl).

Claim 27. (Original) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 22, wherein some parts of group III elements (Al, Ga, and In) in at least one of said plurality of quantum well layers and said at least one quantum barrier layer are substituted for other group III dopants by doping group III impurities such as boron (B) and thallium (Tl).

Claim 28. (Previously presented) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 1, wherein said composition ratio x of indium (In) in said plurality of quantum well layers is $0.15 \leq x \leq 0.6$.

Claim 29. (Previously presented) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 2, wherein said composition ratio x of indium (In) in said plurality of quantum well layers is $0.15 \leq x \leq 0.6$.

Claim 30. (Previously presented) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 1, wherein said composition ratio x of indium (In) in said plurality of quantum well layer is $0.15 \leq x \leq 0.6$.

Claim 31. (Withdrawn) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 7, wherein said composition ratio x of indium (In) is $0.15 \leq x \leq 0.6$.

Claim 32. (Previously presented) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 9, wherein said composition ratio x of indium (In) in said plurality of quantum well layers is $0.15 \leq x \leq 0.6$.

Claim 33. (Previously presented) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 11, wherein said composition ratio x of indium (In) in said plurality of quantum well layers is $0.15 \leq x \leq 0.6$.

Claim 34. (Withdrawn) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 13, wherein said composition ratio x of indium (In) is $0.15 \leq x \leq 0.6$.

Claim 35. (Previously presented) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 1, wherein said composition ratio x of indium (In) in said plurality of quantum well layers is $0.15 \leq x \leq 0.5$.

Claim 36. (Previously presented) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 1, wherein said composition ratio x of indium (In) in said plurality of quantum well layers is $0.15 \leq x \leq 0.5$.

Claim 37. (Original) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 1, wherein a thickness of said plurality of quantum well layers is in a range from 2nm to 6nm.

Claim 38. (Previously presented) A light-emitting semiconductor device using a group III nitride group compound semiconductor according to claim 1, wherein a thickness of said plurality of quantum well layers is in a range from 2nm to 6nm.

Claim 39. (Currently amended) A light-emitting semiconductor device comprising:

a substrate;

a plurality of semiconductor layers formed on said substrate, said layers comprising a group III nitride group compound semiconductor; and

an active layer comprising:

at least one quantum well layer comprising $Al_{1-x}In_xN$, where $\underline{0.1 \leq x < 1}$ ~~$0.1 \leq x \leq 1$~~; and

at least one quantum barrier layer which satisfies the formula $Al_{1-z-y}Ga_yIn_zN$ ($0 \leq y \leq 1$, $0 \leq z < 1$, $0 \leq z+y \leq 1$), alternately formed with said quantum well layer,

wherein a composition ratio y of gallium (Ga) in said quantum barrier layer is one of $y=1$, $y \approx 1$, and $0.9 < y \leq 1$.

Claim 40. (Previously presented) A light-emitting semiconductor device according to claim 39, wherein said at least one quantum barrier layer is adjacent to said at least one quantum well layer.

Claim 41. (Currently amended) A light-emitting semiconductor device according to claim 40, wherein said at least one quantum well layer comprises a plurality of quantum well layers comprising $Al_{1-x}In_xN$, where $\underline{0.1 \leq x < 1}$ ~~$0.1 \leq x \leq 1$~~, and

wherein said at least one quantum barrier layer comprises a plurality of quantum barrier layers comprising $Al_{1-z-y}Ga_yIn_zN$ ($0 \leq y \leq 1$, $0 \leq z < 1$, $0 \leq z+y \leq 1$), and alternately formed with said plurality of quantum well layers.

Claim 42. (Previously presented) A light-emitting semiconductor device according to claim 41, wherein said plurality of quantum well layers comprises two quantum well layers having a thickness of about 4nm and comprising $A1_{0.80}In_{0.2}N$, and

wherein said plurality of quantum barrier layers comprises three quantum barrier layers having a thickness of about 6nm and comprising GaN.

Claim 43. (Currently amended) A group III nitride group compound semiconductor device comprising:

a substrate; and

a light-emitting layer formed on said substrate, said light-emitting layer comprising:

a plurality of quantum well layers comprising $A1_{1-x}In_xN$, where $\underline{0.1 \leq x < 1}$ ~~$0.1 \leq x \leq 1$~~; and

a plurality of quantum barrier layers comprising $A1_{1-z-y}Ga_yIn_zN$ ($0 \leq y \leq 1$, $0 \leq z < 1$, $0 \leq z+y \leq 1$), which are alternately formed with said plurality of quantum well layers

wherein a composition ratio y of gallium (Ga) in said plurality of quantum barrier layers is one of $y=1$, $y \approx 1$, and $0.9 < y \leq 1$.

Claim 44. (New) An active layer for a group III nitride group compound semiconductor device, comprising:

a plurality of quantum well layers which satisfy the formula $A1_{1-x}In_xN$, where a composition ratio x of indium (In) is in a range of $0.1 \leq x < 1$; and

at least one quantum barrier layer which satisfies the formula $Al_{1-z-y}Ga_yIn_zN$ ($0 \leq y \leq 1$, $0 \leq z < 1$, $0 \leq z+y \leq 1$), alternately formed with said plurality of quantum well layers.